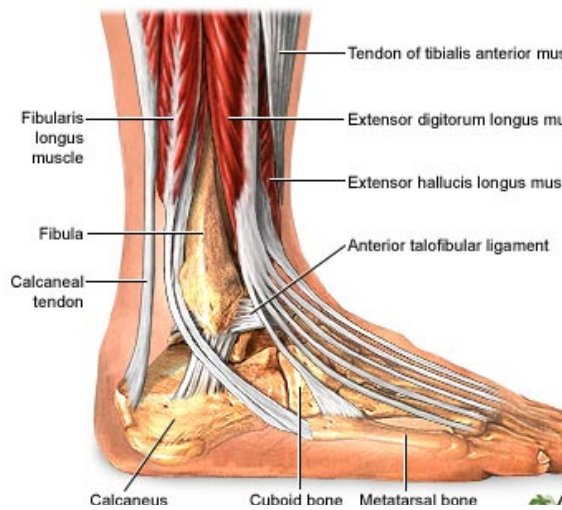


ANATOMY OF ANKLE AND FOOT



Lateral aspect:

[Dorsal medial to lateral= dorsal under extensor retinaculum]

Tibialis Anterior

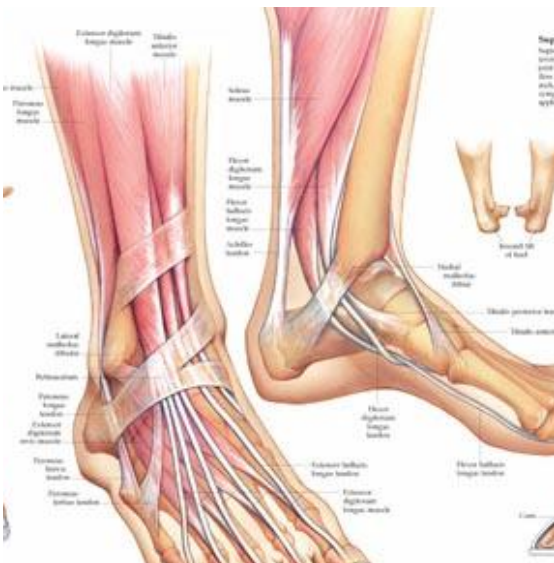
EHL

Artery [Dorsal pedal A] and Anterior tibial N

EDL

Peroneus Tertius

Behind the Lateral malleolus



Medial side

Under Flexor retinaculum from superior to inferior

Tibialis Posterior

EDL

Posterior tibial artery

Posterior tibial Nerve

EHL

Motor Root

Anterior:

Tibialis Anterior	L4
Extensor Hallucis Longus	L5
Extensor Digitorum longus	L5,1
Peroneus Tertius	L5 1
Extensor Digitorum Brevis	S1,2 [like intrinsic muscle]

Peroneus longus and brevis L5,S1 [S1]

Posterior:

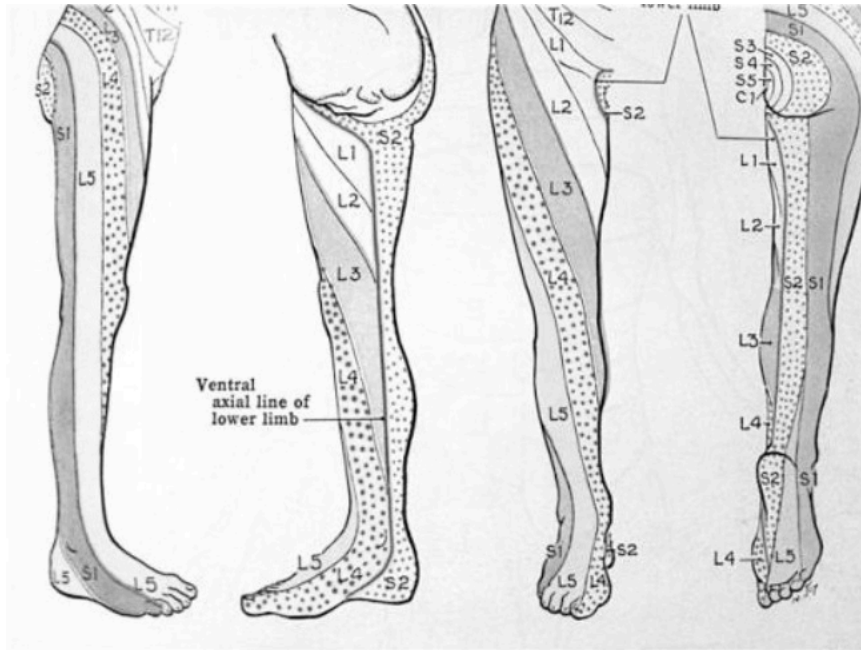
Tibialis Posterior **L4**

Gastrosoleus,

Flexor Hallucis Longus S1-2

Flexor Digitorum longus Rest S1-2

Sensation:



Dorsum: L5

Plantar: S1

Medial border L4

Lateral border S1

Superficial Peroneal nerve: At the anterior border of Peroneus longus, SPN emerges at the junction of middle 1/3 with lower third and then divides into 2 branches supplies dorsum except the first web space supplied by the deep peroneal nerve.

The medial border of the foot is supplied by the saphenous nerve and lateral border of the foot by the sural nerve.

Deep peroneal N: Supplies EDB and additional supply to I Dorsal interosseous and web space.

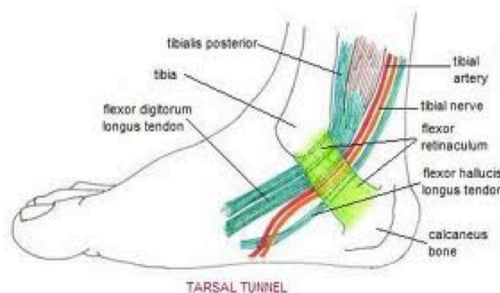
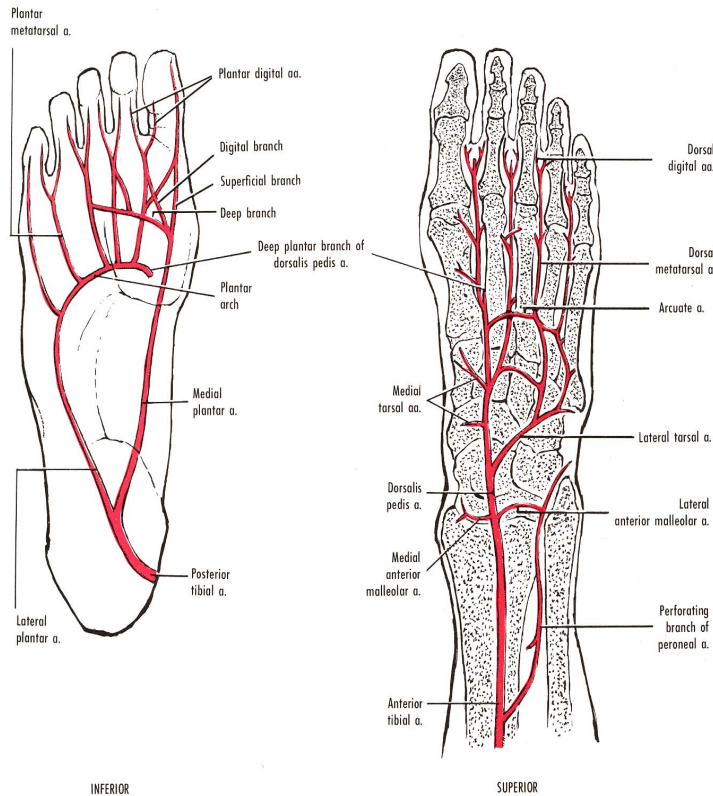
Sensation: Lateral 1.5 by Lateral Plantar Nerve and Medial 3.5 Median Plantar Nerve

Dorsalis pedis: Dips in the I web space to join Lateral peroneal artery.

Branches: Lateral Tarsal artery (under EDB and talus)

Arcuate artery: base of the metatarsal: 3 cleft

I Metatarsal dorsal artery: I cleft and medial side of the toe



Medial side [Flexor retinaculum from superior to inferior]

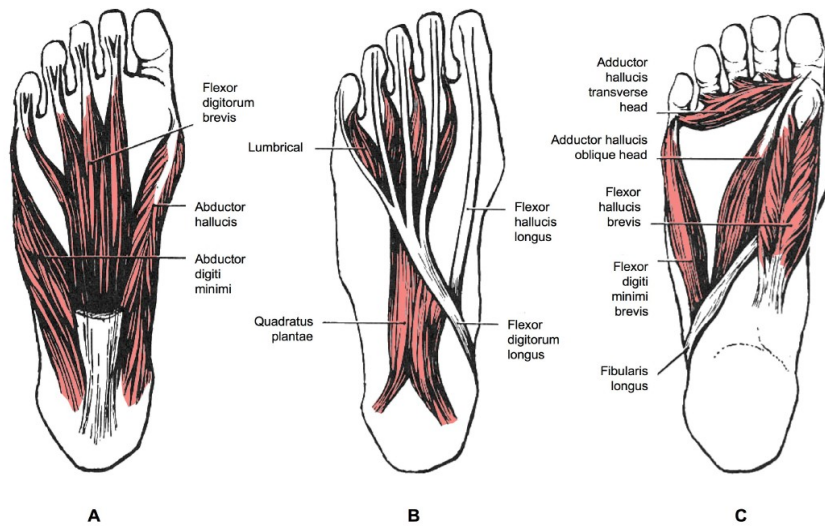
Tibialis Posterior

EDL

Posterior tibial artery

Posterior tibial Nerve

EHL

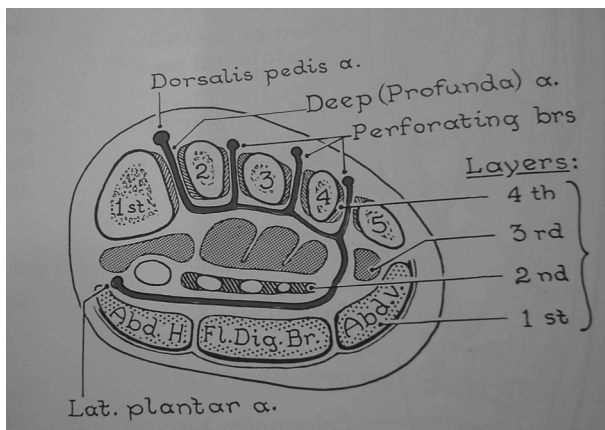


Layers of Sole of the foot
 Layer I AH; FDB; ADMI

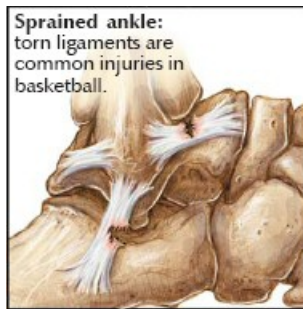
II. FHL and FDL and Lum & Acc

III. FH, Adductor, FDMi

IV Peroneus longus, Tib Post, Interossie[4 Dorsal, 3 plantar]



Lateral Ligaments



Sprained ankle:
 torn ligaments are common injuries in basketball.

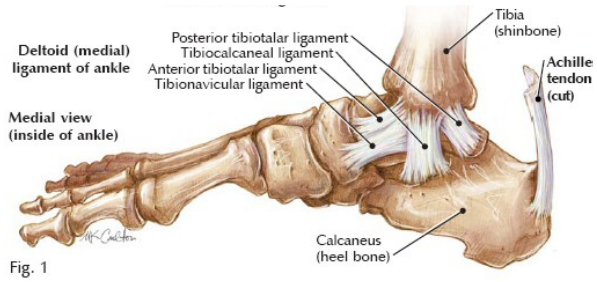
Superficial

- Anterior Talo-navicular ligament
- Calcaneofibular ligament
- Posterior talo-fibular ligament

Deep

- Calcaneo-fibular ligament

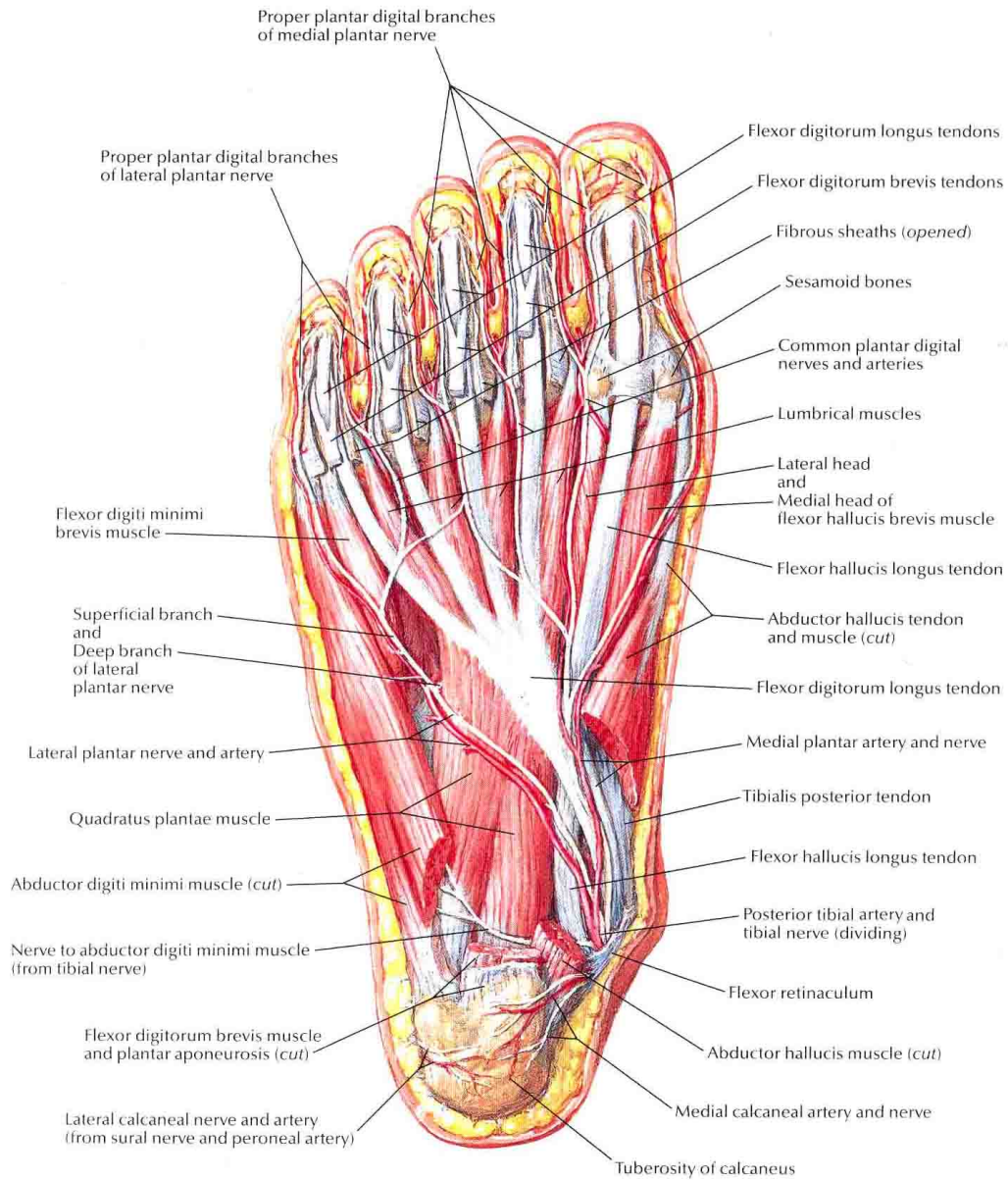
Medial ligaments



Sup Deltoid: ATNL, MTCL, PTTL
 (Navicular tuberosity, S tali, Medial tubercle)

Deep Deltoid: Tibio-talar: Below the comma shaped articular surface

Plantar fascia: Medial calcaneal process
 5 slips (hand 4)
 Distal to Head (S Trans met lig) → 2 slips → distally to DTMLi
 and proximal phalanx



Posterior Tibial Nerve: a. Lateral Plantar Nerve

Main trunk Abd Mi Q

Fl Acc

Skin: lateral part of the heel

Superficial

FDMi

2 interossie of IV (IV D and III P)

Skin 1 and ½ + communicating

Deep Medial interossie I,II, III (First is also by deep pero)

Lateral 3 lumbrical:Adductor Hallucis

Main trunk lies between: I and II layer of the sole; Deep lies : Between III and IV layers

b. Medial plantar nerve Abd H; FDB, FHB

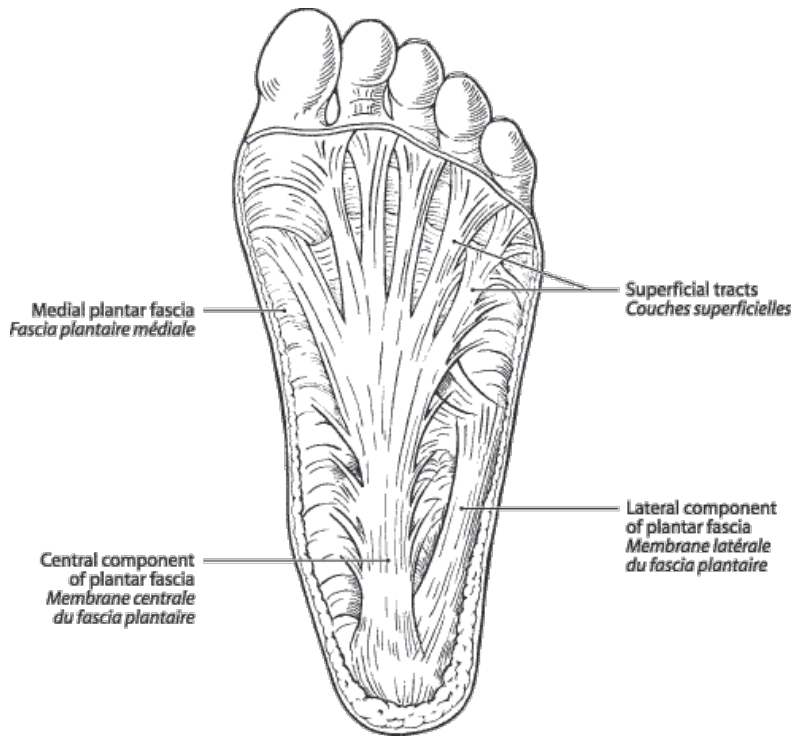
Medial lumbrical

Skin 3 and 1/2

Muscles of sole of the Foot

4-107; 104	Origin	Insertion
FDB (MPN)	Medial process of calcaneum (inferior surface)	Base of the middle phalanx (FDS)
Abd Hal (MPN)	medial surface of C (prox to F A)	Medial side of the base of PP
Abd Dig Min (LPN)	Medial and lateral (inferior)	Lateral side of PP and Met head V
Fl Acc (LPN)	Medial large and small lateral	Lateral side of FDL
Lumbrical	3 lateral: bicipital = LPN[deep] 1 medial: Uni = MPN (hand 2 L)	Medial side (great toe side) to EE
FHB (MPN)	Cuboid and lateral cunieforn + TP tendon	2 sesmoid bone → base of PP (medial with AbH & Lat AdH)
ADD Hal (LPN)	Oblique= II, III, IV + L plantar lig	Lateral side of PP with FHB

	Transvers=deep Met. lig is	
FDM (LPN)	Base of the V met and Per Longus	PP (medial to ADMQ)
PI (LPN)	Lateral 3; Metatarsal	Medial side EE
DI (LPN)	Bipinnate	II abduction force on each side



The plantar fascia is a multilayered fibrous aponeurosis
Le fascia plantaire est une aponévrose formée de plusieurs épaisseurs de membrane fibreuse

The plantar fascia is made up of predominantly longitudinally oriented collagen fibers. There are three distinct structural components: the **medial component**, the **central component (plantar aponeurosis)**, and the **lateral component** (see diagram at right). The central component is the largest and most prominent.

SUBTALAR JOINTS

Talo-calcaneal joint: Posterior facet is the important part

Anterior Talo calcaneonavicular joint. : Anterior and middle facet + Spring lig
 (fibrocartilaginous upper part + navicular bone, articulating with head of the talus as a single synovial cavity)

Short Plantar lig: Ant tubercle of calcaneum to the proximal to post ridge of cuboid

Long plantar lig: Anterior to calcaneal tub and bridges PL Anterior ridge of the groove.

Spring: Plantar Calcaneonavicular ligament: Susten Tali to Navicular bone; Takes part in ball and socket; upper surface if fibrocartilage; Although it is called, it is not elastic

Y ligament: top of the calcaneus under the EDB ; one limb to the cuboid and other to the navicular

Interossie ligament and cervical ligament